

FIG. 1

(d)

GYRB BACSU MEQQQNSYDENQIQVLEGLEAVRKRPGMYIGSTNS-KGLHHLVWEIVDNSIDEALAGYCT
 GYRB ECOLI ----SNSYDSSSIKVLKGLDAVRKRPGMYIGD~~TD~~DTGLHHMVFEVDNAIDEALAGHCK
 GYRB PSEPU -MSENQTYDSSSIKVLKGLDAVRKRPGMYIGD~~TD~~DGSLHHMVFEVDNSIDEALAGHCD

(a)

GYRB BACSU DINIQIEKDNSITVVDNNGRGI PVGIHEKMGRPAVEVIMTVLHAGGKFDGSGYKVS~~GGLHG~~
 GYRB ECOLI EIIIVTIHADNSVSVQDDGRGIPTGIHPEEGVSAAEVIMTVLHAGGKFD~~DD~~NSYKVS~~GGLHG~~
 GYRB PSEPU DITVIIHTDESISVRDNNGRGI PVDVHKEEGVSAAEVIMTVLHAGGKFD~~DD~~NSYKVS~~GGLHG~~

GYRB BACSU VGASVVNALSTELDVTVHRDGIHRQTYKRGVPVTDLEIIGETDHTGTTTHFVPDPEIFS
 GYRB ECOLI VGVSVVNALSQKLELVIQREGKIHRQIYEHGVPQAPLAVTGETEKTGTMRWFPSLETFT
 GYRB PSEPU VGVSVVNALSEKLVLTVRRSGKIWEQTYVHGVPQAPMAVVGES~~ETT~~GTHIHFKPSAETFK

GYRB BACSU ETTEYDYDLLANRVRELAFLTKGVNITIEDKREGQERKNEYHYEGGIKSYVEYLNR~~SKEV~~
 GYRB ECOLI NVTEFEYEILAKRLRELSFLNSGV~~SIRLRD~~KRDGKE--DHFHYEGGIKAFVEYLNKNKTP
 GYRB PSEPU N-IHFSWDILAKRIRELSFLNSGVGILLK~~DERSGKE~~--EFFKYEGGLRAFVEYLN~~TN~~KTP

(1) (b)

GYRB BACSU VHEEPIYIEGK-DGITVEVALQYND~~SYTSNI~~YSFTNNINTYEGGT~~HEAGFK~~TGLTRVIN
 GYRB ECOLI IHPNIFYFSTEK-DGIGVEVALQW~~NDGFQENI~~YCFTNNIPQ~~RDGG~~THLAGFRAAMTRTLN
 GYRB PSEPU VNSQVFHFSVQREDGVGVEVALQW~~NSFNENLL~~CFTNNIPQ~~RDGG~~THLVGFRSSLTRSLN

(h) (e)

GYRB BACSU DYARKKGLIKENDPNLSGDDVREGLTAII~~SIKHPDPQ~~FEGQTKTKLGNSEARTITDTLFS
 GYRB ECOLI AYMDKEGYSKKAKVSATGDDAREGLIAVSVKVPDPKFSSQTKDKLVSSEVKSAVEQOMN
 GYRB PSEPU SYIEQEG~~LAKKN~~VATTGDDAREGLTAII~~SVKVPDPKFSSQTKDKLVSSEVK~~TAVEQEMN

(k) (i)

GYRB BACSU TAMETFMLENPDAAKKIVDKGLMAARMAAKKAREL~~TRRKS~~ALEISNLPGLAD~~CSSKD~~
 GYRB ECOLI ELLAEYLL~~ENPTDAKIV~~VGKIIIDARAREAAARRAREM~~TRRK~~GALDLAGLPGKLAD~~CQERD~~
 GYRB PSEPU KYFSDFLLENPNEAKAVVGKMIDAARAREAAARKAREM~~TRRK~~GALDIAGLPGKLAD~~CQEKD~~

(g)

GYRB BACSU PSISELYIVEGDSAGGSAKQGRDRHFQAILPLRGKILNVEKARLDKILSNNEVRSMITAL
 GYRB ECOLI PALSELYLVEGDSAGGSAKQGRNRKNQAILPLK~~GKILNVEKAR~~FDKMLSSQEVATLITAL
 GYRB PSEPU PALSELYLVEGDSAGGSAKQGRNRRTQAILPLK~~GKILNVEKAR~~FDKMISSQEVGTLITAL

(c)

GYRB BACSU GTGIGED-FNLEKARYHKVVIMTDADVDGAHIRTLLLTFFYRYMRQIIENGYVYIAQPPL
 GYRB ECOLI GCGIGRDEYNPDKLRYHSIIIMTDADVDGSHIRTLLLTFFYRQMP~~EIVERGHVYIAQPPL~~
 GYRB PSEPU GCGIGREEYNIDKLRYHNIIIMTDADVDGSHIRTLLLTFFRQLPELVERGYIYIAQPPL

GYRB BACSU YKVQQGK-----
 GYRB ECOLI YKVKKGKQEYIKDDEAMDQYQISIALDGATLHTNASAPALAGEALEKLVSEYNATQKMI
 GYRB PSEPU YKVKKGKQEYIKDDEAMEEYMTQSALEDASLHLD~~ESAPAVSGVQLES~~LVNEFRSVMKTL

GYRB BACSU -RVEYAY-----NDKE-----
 GYRB ECOLI NRMERRYPKAM~~LKELIYQPTL~~TEADLSDEQTVTRWVNALVSELNDKEQHGSQWKFDVHTN
 GYRB PSEPU KRLSRLYPEELTEHFVYLPEVTLEQLGDHAVMQAWLAKLQERLNSSQKSGLAYNASLRED

GYRB BACSU -----
 GYRB ECOLI AEQNLFEPIVRVRTHGVDTDYPLDHEFITGGEYRRIC~~TLGEKLRGLLEEDAFIERGERRQ~~
 GYRB PSEPU KERNVWLPEVEITSHGLASYITFNRDFFGSNDYRTVVNIGAKLSLLGEGAYVQRGERRK

(f) (j)

GYRB BACSU ----LEELLKTL~~PQTPKP~~--GLQRYKGLGEMNATQLWET~~TMDPSS~~RTLLQVTLEDAMDAD
 GYRB ECOLI PVASFEQALDWLVKESRRGLSIQRYKGLGEMNPEQLWET~~TMDPES~~RRLRVTVKDAIAAD
 GYRB PSEPU AIVEFKEGLDWLMNETTKRHTIQRYKGLGEMNPDQLWET~~TMDPTVRRMLKVTIEDAIAAD~~

GYRB BACSU ETFEMLMGDKVEPRRNFI~~ANARYVKNLDI~~
 GYRB ECOLI QLFTTLMGDAVEPRRAFIE~~ENALKAANIDI~~
 GYRB PSEPU QIFNTLMGDAVEPRREFIES~~NALSVSNLDF~~